

CLIPPEDIMAGE= JP02001110828A

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DOCUMENT-IDENTIFIER: JP 2001110828 A

TITLE: MANUFACTURING METHOD OF SEMICONDUCTOR DEVICE

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INVENTOR-INFORMATION:

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APPL-NO: JP11291472

APPL-DATE: October 13, 1999

INT-CL (IPC): H01L021/56;H01L021/301 ;H01L023/12

ABSTRACT:

PROBLEM TO BE SOLVED: To improve the reliability of a chip size package.

SOLUTION: Metal posts 8 are formed to a wafer, and while a tape 21 for dicing is stuck to the back face of the wafer, the wafer is diced for each chip. Then, the upper face of the wafer is resin-sealed, and a resin layer R is polished, and the head parts of the metal posts 8 are exposed. Then, solder balls are mounted on the metal posts 8, and the wafer is separated into each chip by a dicing process.

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PATENT ABSTRACTS OF JAPAN

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(51)Int.Cl.

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(21)Application number : 03-211207

(71)Applicant : SONY CORP

(22)Date of filing : 23.08.1991

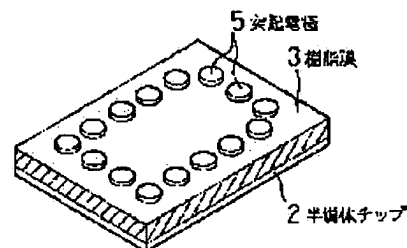
(72)Inventor : NISHINO TOMONORI

(54) SEMICONDUCTOR DEVICE

(57)Abstract:

PURPOSE: To improve handling operability of a semiconductor chip in a manufacturing step while reducing in thickness of the chip itself irrespective of the size of a semiconductor wafer and to obtain a small-sized thin semiconductor device.

CONSTITUTION: A semiconductor wafer 1 is reduced in thickness while forming a resin film 3 in a protective reinforcing plate, protrusion electrodes 5 protrude from the film 3 on a semiconductor chip 2 as an external connection terminal, and the film 3 is so cut as to be the same in size as the chip 2. Thus, a semiconductor device having high reliability, easy handling, small size and thickness, is obtained.



LEGAL STATUS

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| L Number | Hits | Search Text | DB | Time stamp |
|----------|------|---|---|------------------|
| 1 | 1252 | (sog) and chip | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/07/24 14:26 |
| 2 | 1040 | ((sog) and chip) and (@ad<20000428) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/07/24 14:32 |
| 3 | 3477 | glass near wafer | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/07/24 14:31 |
| 4 | 0 | glass near wafeL3 and chip | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/07/24 14:31 |
| 5 | 527 | (glass near wafer) and chip | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/07/24 14:31 |
| 6 | 404 | ((glass near wafer) and chip) and (@ad<20000428) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/07/24 14:49 |
| 7 | 7894 | wafer with (encapsulant or resin or protective) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/07/24 14:49 |
| 8 | 2170 | (wafer with (encapsulant or resin or protective)) and chip | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/07/24 14:49 |
| 9 | 1750 | ((wafer with (encapsulant or resin or protective)) and chip) and (@ad<20000428) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/07/24 14:50 |
| 10 | 1023 | ((wafer with (encapsulant or resin or protective)) and chip) and (@ad<20000428)) and (chip with wafer) | USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB | 2002/07/24 15:02 |
| 11 | 0 | 20010039078.URPN. | USPAT | 2002/07/24 14:58 |
| 12 | 0 | 20010039078.URPN. | USPAT | 2002/07/24 14:58 |
| 13 | 0 | 6407333.URPN. | USPAT | 2002/07/24 15:00 |
| 14 | 0 | 6407333.URPN. | USPAT | 2002/07/24 15:00 |
| 15 | 1 | ("6291884").PN. | USPAT | 2002/07/24 15:15 |
| 16 | 0 | 6291884.URPN. | USPAT | 2002/07/24 15:05 |
| 17 | 0 | 6291884.URPN. | USPAT | 2002/07/24 15:05 |
| 18 | 13 | ("5148265" "5148266" "5155661" "5258330" "5398863" "5641995" "5672545" "5969417" "5973403" "5990563" "6111322" "6121686" "6163462").PN. | USPAT | 2002/07/24 15:05 |
| 19 | 1 | ("6344401").PN. | USPAT | 2002/07/24 15:18 |
| 20 | 0 | 6344401.URPN. | USPAT | 2002/07/24 15:17 |
| 21 | 0 | 6344401.URPN. | USPAT | 2002/07/24 15:18 |
| 22 | 1 | ("6291884").PN. | USPAT | 2002/07/24 15:18 |
| 23 | 0 | 6162703.URPN. | USPAT | 2002/07/24 15:22 |
| 24 | 0 | 6162703.URPN. | USPAT | 2002/07/24 15:22 |

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| 25 | 12 | ("3677875" "4722130" "4946716" "5071792" "5185292" "5223734" "5234535" "5476566" "5480842" "5494549" "5824595" "5888883").PN. | USPAT | 2002/07/24 15:22 |
| 27 | 12 | 5989982.URPN. | USPAT | 2002/07/24 15:29 |
| 28 | 0 | 2001308116.URPN. | USPAT | 2002/07/24 16:34 |